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Attachment IV

INTERCONNECTION

ATTACHMENT IV

INTERCONNECTION

Section 1. Network Interconnection Methods and Interconnection Trunking Arrangements.

[Issue No. I-1, open 11/12/01]

1.1 Network Interconnection Methods

1.1.1 Upon request by MCIm, Verizon shall provide Interconnection for the facilities and equipment of MCIm with Verizon's network for the transmission and routing of Telephone Exchange Service and Exchange Access at any Technically Feasible point within Verizon's network. The Interconnection must be at least equal in quality to that provided by Verizon to itself, any Verizon subsidiary, Verizon Affiliate, or any third party to which Verizon provides interconnection. Verizon shall provide interconnection on rates, terms and conditions that are just, reasonable and Non-Discriminatory in accordance with the terms and conditions of this Agreement and the requirements of the Act.

[Issue Nos. I-1, III-3 & VI-1(B), open 11/12/01]

1.1.2 Verizon shall provide interconnection at any Technically Feasible point, by any Technically Feasible means, including, but not limited to, a Fiber Meet, at one or more locations in each LATA in which MCIm originates local, intraLATA toll, or Meet Point Switched Access traffic and interconnects with Verizon.

[Issue No. I-1, open 11/12/01]

1.1.3 If MCIm determines to establish new, or change existing, interconnection arrangements with Verizon, it will provide written notice of the need to establish or change such interconnection with Verizon.

1.1.3.1 MCIm will designate the Point or Points of Interconnection and determine the method or methods by which the Parties interconnect.

1.1.3.2 MCIm will determine the appropriate sizing for interconnection facilities based on mutual forecasts.

1.1.3.3 MCIm will designate Points of Interconnection (POI) demarcating the Parties' networks for purposes of maintenance and provisioning. Verizon will be responsible for engineering and maintaining its network on its side of the POI. MCIm will be responsible for engineering and maintaining its network on its side of the POI. "Point of Interconnection" is the physical point of Interconnection that establishes the technical interface, test point, and operational responsibility hand off between the Parties for the local interconnection of their networks.

[Issue No. IV-4, open 11/12/01]

1.1.4 Verizon shall respond to MCIm's request for interconnection within ten business days after the date of the request.

1.1.4.1 Verizon shall acknowledge in writing its receipt of MCIm's request for interconnection.

1.1.4.2 Verizon shall provide any information available to it regarding adverse environmental or other conditions involving a POI or the interconnection route or location including, but not limited to, the existence and condition of asbestos, lead paint, radon, or other hazardous substance contamination. Information is considered "available" if it is in Verizon's possession, or the possession of a current or former agent, contractor, employee, Affiliate, lessor, or tenant of Verizon.

1.1.4.3 Verizon shall allow MCIm to perform any site investigations, including, but not limited to, asbestos surveys, which MCIm may deem to be necessary in support of its interconnection needs. Such site investigations shall be conducted only after Verizon has notified MCIm of the presence of a hazard, and only to the extent necessary for MCIm to assess the effect of the hazard on MCIm's interconnection.

1.1.4.4 If interconnection is complicated by the presence of environmental contamination or other conditions and an alternative route is available, Verizon shall make the alternative route available for MCIm's consideration.

[Issue No. III-3, open 11/12/01]

1.1.5 Fiber Meet

1.1.5.1 Fiber Meet is the preferred network interconnection method of the Parties. Where the Parties interconnect their networks

pursuant to a Fiber Meet, the Parties shall jointly engineer and operate the interconnection as a single SONET transmission system for the transmission and routing of Telephone Exchange Service and Exchange Access.

1.1.5.2 The Parties agree to establish technical interface specifications for Fiber Meet arrangements that permit the successful interconnection and completion of traffic routed over the facilities that interconnect at the Fiber Meet. Each Party is responsible for designing, provisioning, ownership, and maintenance of all equipment and facilities on its side of the Fiber Meet. The technical specifications will be designed so that each Party may, as far as is Technically Feasible, independently select the transmission, multiplexing, and fiber terminating equipment to be used on its side of the Fiber Meet. The Parties will work cooperatively to achieve equipment compatibility. Requirements for the interconnection specifications will be defined in joint engineering planning sessions between the Parties. MCIm shall document the specifications as they are developed and distribute them to Verizon. The Parties will use good faith efforts to develop and agree on these specifications within 30 days after the determination by the Parties that the specifications will be implemented, and in any case, prior to the establishment of any Fiber Meet arrangements between them. If the Parties cannot agree on the specifications, the Parties shall implement MCIm's specifications, unless Verizon can prove that such specifications are not Technically Feasible, in which case the Parties shall implement any other Technically Feasible specifications selected by MCIm. Specifications are presumed to be Technically Feasible if Verizon or any other ILEC has previously implemented the same specifications.

1.1.5.2.1 Unless otherwise specified by MCIm, the minimum data rate hand off of the SONET transmission system must be at OC-48 or higher. Unless otherwise requested by MCIm, the Parties shall turn the Data Communication Channel (DCC) of the SONET signal containing alarm, surveillance, and performance information to off.

1.1.5.2.2 Verizon shall, wholly at its own expense, procure, install, and maintain the specified Fiber Optic Terminal (FOT) equipment in each Verizon Wire Center where the Parties establish a Fiber Meet. The FOT must have capacity sufficient to provision and maintain all logical trunk groups in accordance with the requirements of this Attachment IV.

1.1.5.2.3 MCIm shall, wholly at its own expense, procure, install and maintain the specified FOT equipment in each MCIm Wire Center where the Parties establish a Fiber Meet. The FOT must have capacity sufficient to provision and maintain all logical trunk groups in accordance with the requirements of this Attachment IV.

1.1.5.2.4 MCIm shall designate a manhole or other suitable entry way located outside Verizon's Wire Center as a Fiber Meet facility hand off point and shall make all necessary preparations to receive, and to allow and enable MCIm to deliver, fiber optic facilities into that manhole, providing sufficient spare length of Optical Fire Resistant (OFR) cable to reach the FOT equipment in Verizon's Wire Center. MCIm shall deliver and maintain such strands wholly at its own expense. Verizon shall take the fiber from the manhole and terminate it inside Verizon's Wire Center in the FOT equipment at Verizon's expense.

1.1.5.2.5 MCIm shall designate a manhole or other suitable entry way outside MCIm's Wire Center as a Fiber Meet facility hand off point and shall make all necessary preparations to receive, and to allow and enable Verizon to deliver, fiber optic facilities into that manhole, providing sufficient spare length of OFR cable to reach the FOT equipment in MCIm's Wire Center. Verizon shall deliver and maintain such strands wholly at its own expense. MCIm shall take the fiber from the manhole and terminate it inside MCIm's Wire Center in the FOT equipment at MCIm's expense.

1.1.5.2.6 Alternatively, MCIm may designate a common facility hand off point between the Parties' networks. Both Parties shall deliver their fiber optic facilities into that common facility hand off point, providing sufficient spare length of OFR cable to enable a SEICOR closure. Each Party shall be responsible for the delivery and maintenance of facilities on its side of the common facility hand off point at its own expense.

1.1.5.2.7 Each Party shall use its best efforts and cooperate with the other to ensure that fiber received from the other Party will enter the Party's Wire Center through a facility hand off point separate from that which the Party's own fiber exited. Each Party shall research the fiber routes to ensure

diversity and report to the other Party in writing the location and distance of fiber running in close proximity

1.1.5.2.8 Subject to the security requirements specified in this Agreement, each Party shall allow the other access to the Fiber Meet entry points for maintenance purposes upon oral request.

[Issue No. IV-3, open 11/12/01]

1.1.6 Sizing and Structure of Interconnection Facilities

1.1.6.1 The Parties shall work cooperatively to install and maintain efficient and reliable interconnection arrangements.

1.1.6.2 The interconnection facilities provided by each Party will be formatted in accordance with Section [4] of this Attachment IV.

1.1.6.3 The capacity of interconnection facilities provided by each Party will be based on mutual forecasts and sound engineering practice, as agreed by the Parties during planning and forecasting meetings. MCIm will determine the appropriate sizing for facilities based on these standards.

1.1.6.4 The Parties shall work cooperatively to ensure the adequacy of interconnection facilities. The Parties shall augment existing facilities when the overall system facility is at fifty percent (50%) of capacity, or as otherwise agreed. Facilities will be augmented to ensure adequate facility capacity for at least two years of forecasted traffic.

1.1.6.5 The Parties shall complete the construction of relief facilities within two months of the identification of the need to augment existing facilities, or sooner, if facilities exhaust is imminent.

[Issue Nos. IV-3 & IV-5, open 11/12/01]

1.1.6.6 For mid-span meets, except in those cases in which one Party may lease interconnection facilities from the other Party, there will be no compensation between the Parties for use of the interconnection facilities.

[Issue No. VI-1(A) open 11/12/01]

1.2 Interconnection Trunking Arrangements

1.2.1 The Parties will establish trunk groups to exchange local, intraLATA toll, and transit traffic (referred to in this Attachment IV as "Local Interconnection Trunk Groups").

1.2.2 The Parties will establish other interconnection trunk groups as may be required for the exchange of other traffic, including, but not limited to, Meet Point, 911, Operator Services, and Directory Assistance.

1.2.3 Either Party may order and establish interconnection trunk groups in addition to the initial combinations described above.

1.2.4 Unless otherwise agreed to, each Party shall deliver all traffic destined to terminate at either Party's Switch in accordance with the serving arrangements defined in this Agreement and the LERG.

[Issue Nos. IV-6 & VI-1(A), open 11/12/01]

1.2.5 Other than the reciprocal compensation arrangements set forth in this Agreement, neither Party may charge the other Party for use of Local Interconnection Trunk Groups. As an example only, neither Party may charge the other Party, installation charges or monthly recurring charges for the use of Local Interconnection Trunk Groups.

[Issue No. VI-1(A) open 11/12/01]

1.2.6 It is recognized by the Parties that there is no technical requirement to segregate local and toll traffic from MCIm to Verizon, or from Verizon to MCIm.

1.2.7 Sizing and Structure of Interconnection Trunks

1.2.7.1 Intentionally Left Blank

[Issue No. IV-2, open 11/12/01]

1.2.7.2 Unless otherwise indicated in this Agreement, trunks will be provisioned as one-way or two-way trunks as specified by MCIm.

[Issue Nos. I-1 & VI-1(A), open 11/12/01]

1.3 Local Interconnection Trunking Arrangements

1.3.1 LATA Wide Terminating Interconnection. MCIm may elect LATA Wide Terminating Interconnection with Verizon. Under such an arrangement, the Parties will establish Local Interconnection Trunk Groups to a single Verizon Tandem designated by MCIm for the termination of all Local Interconnection Traffic destined for any Verizon office in that LATA.

1.3.2 Tandem Level Terminating Interconnection. MCIm may elect Tandem Level Terminating Interconnection with Verizon. Under such an arrangement, the Parties will establish Local Interconnection Trunk Groups to each Verizon Access Tandem in a LATA in which MCIm originates Local Interconnection Traffic and interconnects with Verizon.

[Issue Nos. IV-6 & VI-1(A), open 11/12/01]

1.4 Meet Point Trunking Arrangements

1.4.1 The Parties shall establish two-way trunk groups for the joint provisioning of Feature Group B and Feature Group D ("FGB and FGD") Switched Access services ("Meet Point Interconnection Trunk Groups").

1.4.2 Meet Point Interconnection Trunk Groups will be established between MCIm's Switch and Verizon's Access Tandem. The Parties will establish separate trunk groups to each Verizon Access Tandem under which MCIm's NXXs home using DS-1 or DS-3 facilities separate from those used for Local Interconnection Trunk Groups.

1.4.3 Verizon shall, except in instances of capacity limitations, permit and enable MCIm to subtend the Verizon Access Tandem nearest to the MCIm rating point associated with the NPA-NXX to/from which the Meet Point services are homed. In instances of capacity limitation at a given Access Tandem, MCIm may subtend the next nearest Verizon Access Tandem in which sufficient capacity is available. The Meet Point billing percentages for each new rating point/Access Tandem pair will be calculated in accordance with MECAB and MECOD guidelines.

1.4.4 Common Channel Signaling (CCS) will ordinarily be utilized in conjunction with Meet Point Interconnection Trunk Groups; except that multi-frequency (MF) signaling may be used on a separate Meet Point Interconnection Trunk Group for (i) originating or terminating FGB or FGD access due to equipment constraints or (ii) to complete originating calls to Switched Access customers that use MF FGD signaling protocol. MF and CCS Trunk Groups will not be provided within a DS-1 facility; a separate DS-1 per signaling type must be used.

1.4.5 **Intentionally Left Blank**

1.4.6 **Intentionally Left Blank**

[Issue Nos. IV-6 & VI-1(A), open 11/12/01]

1.4.7 Originating FGB calls delivered to Verizon's Tandem must use GR-317 signaling format unless the associated FGB carrier employs GR-394 signaling for its FGB traffic at the serving Access Tandem.

[Issue No. IV-34, resolved]

1.4.8 Joint Interconnection Trunk Groups

1.4.8.1 At either Party's request, the Parties agree to work cooperatively to determine the feasibility of combining Local Interconnection Trunk Groups and Access Toll Connecting Trunk Groups on single Interconnection Trunk Groups ("Joint Interconnection Trunk Groups"). Whenever the use of Joint Interconnection Trunk Groups is determined to be feasible by the Parties, and ordering and billing procedures have been established:

1.4.8.1.1 MCIm may order new Joint Interconnection Trunk Groups in accordance with such ordering and billing procedures. In addition, at MCIm's written request, the Parties will work together in good faith to convert existing Local Interconnection Trunk Groups and Access Toll Connecting Trunk Groups into Joint Interconnection Trunk Groups; provided that the Parties will complete such conversions within an interval and at appropriate charges negotiated by the Parties.

[Issue Nos. IV-7 & VI-1(A), open 11/12/01]

1.5 911 Trunking Arrangements **[Agreed to in principle except bolded text.]**

1.5.1 The Parties agree to provide access to 911/E911 in a manner that is transparent to the Parties' customers. The Parties will work together to facilitate the prompt, reliable, and efficient Interconnection of MCIm's systems to Verizon's 911/E911 platforms, with a level of performance that will provide at least the same grade of service as that which Verizon provides to itself, its customers, subsidiaries, Affiliates, or any third party.

1.5.2 The Parties shall establish a minimum of two dedicated trunks from MCIm's Central Office to each Verizon 911/E911 selective router (i.e., 911 Tandem Office) that serves the areas in which MCIm provides Exchange Service, for the provision of 911/E911 services and for access to all subtending PSAPs (911 Interconnection Trunk Groups). Verizon shall provide the number of 911/Interconnection Trunk Groups as may be ordered by MCIm.

1.5.3 911 Interconnection Trunk Groups must be, at a minimum, DS-0 level trunks configured as a 2-wire analog interface or as part of a digital (1.544 Mbps) interface. The Parties shall use SS7 signalling on all 911/E911 trunks, unless

~~Either configuration must use~~ Centralized Automatic Message Accounting (CAMA) type signaling with MF tones that will deliver Automatic Number Identification (ANI) with the voice portion of the call is specified by MCIm~~, unless the 911/E911 selective router is SS7 capable, in which case MCIm may require SS7 signaling~~. All 911 Interconnection Trunk Groups must be capable of transmitting and receiving Baudot code necessary to support the use of Telecommunications Devices for the Deaf (TTY/TDDs).

1.5.4 911 Interconnection Trunking Groups must be arranged to minimize the likelihood of Central Office isolation due to cable cuts or other equipment failures. Where there is an alternate means of transmitting a 911/E911 call to a PSAP in the event of failures, Verizon shall make that alternate means available to MCIm. Verizon shall assign 911 Interconnection Trunk Groups on diverse interoffice facilities where diverse routes are already available or planned. Circuits must have interoffice, loop, and carrier system diversity when this diversity can be achieved using existing facilities. Circuits will be divided as equally as possible across available carrier systems. Verizon shall periodically review the circuit design to ensure that the diverse routing is maintained and rectify any diversity inconsistencies or problems. At MCIm's option, diversity will be upgraded to utilize the highest level of diversity available in the network.

1.5.5 Verizon shall provide the selective routing of 911/E911 calls received from MCIm's Central Office. This includes forwarding MCIm's customers' ANIs and the selective routing of the call to the appropriate PSAP. Verizon shall provide MCIm with the appropriate CLLI codes and specifications on a per selective router/tandem basis~~regarding the selective router serving area~~, **the 10-digit number of each PSAP,** associated addresses, and meet points in the network.

1.5.6 Verizon shall provide for overflow 911/E911 traffic to be routed to the Verizon Operator Services platform or, at MCIm's discretion, directly to MCIm Operator Services platform.

1.5.6.1 Verizon shall provide the 10-digit overflow/alternate number used by the local PSAP, if available.

1.5.7 Verizon shall provide MCIm with copies of selective routing boundary maps showing the boundaries ~~around the outside of the set of exchange areas or Rate Centers~~ served by a selective router, with sufficient detail for MCIm to associate a given geographic location with a specific selective router. Verizon shall also provide detailed written descriptions of, but not limited to, the following information upon MCIm's request:

1.5.7.1 Geographic boundaries of government entities, PSAPs and exchanges, as necessary.

1.5.7.2 Verizon's Rate Centers and exchanges.

1.5.7.3 Documentation showing the correlation of Verizon's Rate Centers to its 911/E911 Tandems.

1.5.7.4 Technical specifications for network interface, database loading and maintenance.

1.5.8 Verizon shall continuously monitor equipment and circuits used for 911/E911 traffic. Monitoring of circuits must be done to the individual trunk level. Monitoring must be conducted by Verizon for trunks between the selective router and all associated PSAPs.

1.5.9 Verizon shall begin restoration of E911 or E911 trunking facilities immediately upon notification of failure or outage. Verizon must provide priority restoration of 911 Interconnection Trunks and networks outages on the same terms and conditions it provides itself and without the imposition of Telecommunications Service Priority (TSP). MCIm will be responsible for the isolation, coordination, and restoration of all 911 network maintenance problems to the MCIm demarcation (e.g., collocation). Verizon will be responsible for the coordination and restoration of all 911 network maintenance problems beyond the demarcation (e.g. collocation). MCIm is responsible for advising Verizon of the circuit identification when notifying Verizon of a failure or outage. The Parties agree to work cooperatively and expeditiously to resolve any 911/E911 outage. Verizon will refer network trouble to MCIm if no defect is found in Verizon's network. The Parties agree that 911/E911 network problem resolution will be managed in an expeditious manner at all times.

1.5.10 Verizon shall begin repair service immediately upon report of a malfunction. Repair service includes, but is not limited to, testing and diagnostic service from a remote location and dispatch, or in-person visit(s), of personnel. Where an on-site technician is determined to be required, a technician will be dispatched without delay.

1.5.11 Each ALI discrepancy report shall be jointly researched by Verizon and MCIm. Corrective action shall be taken promptly by the responsible Party.

1.5.12 Subject to mutual agreement, Verizon shall provide MCIm with written technical specifications for network interfaces, and technical specifications for database loading and maintenance pursuant to NENA Standards.

1.5.13 Verizon shall identify special routing arrangements to complete 911 calls.

1.5.14 Verizon shall identify any special operator-assisted calling requirements to support 911.

[Issue Nos. IV-8 partially resolved and VI-1(A) open 11/12/01]

1.6 Operator Services Trunking Arrangements

1.6.1 Where MCIm purchases Operator Services from Verizon, MCIm will establish separate trunk groups from MCIm's Switch to Verizon's operator switch ("Operator Services Trunk Groups").

1.6.2 Where MCIm purchases Operator Services from Verizon, Verizon operators will verify MCIm End User loops that are provisioned or maintained by Verizon. Where MCIm does not purchase Operator services from Verizon, MCIm operators may request Verizon operators to provide line status verification of loops provisioned or maintained by Verizon, and such requests will be transmitted via inward trunks established pursuant to Section [6] below, or over local interconnection trunks via the appropriate operator services code in the LERG.

1.6.3 **Intentionally Left Blank**

[Issue Nos. IV-8 partially resolved and VI-1(A) open 11/12/01]

1.6.4 If MCIm does not purchase Operator Services from Verizon, the Parties shall exchange Busy Line Verify/Busy Line Verify Interrupt (BLV/BLVI) inquiries between operator bureaus over Local Interconnection Trunk Groups using network-routable access codes published in the LERG.

[Issue Nos. IV-8 partially resolved and VI-1(A) open 11/12/01]

1.7 Directory Assistance Trunking Arrangements

1.7.1 Where MCIm purchases Directory Assistance service from Verizon, the MCIm will establish separate trunk groups from MCIm's Switch to Verizon's Directory Assistance platform (Directory Assistance Trunk Groups).

1.7.2 Where MCIm purchases Verizon's Directory Assistance services or Operator Assistance services, and Verizon has automated call dialing or completion service available, Verizon shall provide such service to MCIm upon request. Verizon shall provide MCIm with the customer billing records necessary for MCIm to bill its customers for these calls.

[Issue No. IV-2, open 11/12/01]

1.8 Two-Way Interconnection Trunks. Where Two-Way Local Interconnection Trunks may be used under the terms of this agreement, prior to ordering any Two-Way Local Interconnection Trunks from Verizon, MCIm shall meet with Verizon to

conduct a joint planning meeting ("Joint Planning Meeting"). At that Joint Planning Meeting, each Party shall provide to the other Party originating CCS (Hundred Call Second) information, and the Parties shall mutually agree on the appropriate initial number of Two-Way End Office (as used herein, a.k.a. in other jurisdictions - Meet Point A (high usage)) and Tandem (as used herein, a.k.a. in other jurisdictions - Meet Point B (final))Local Interconnection Trunks and the interface specifications (i.e., DS1 or DS-3) at the Point of Interconnection ("POI"). At such Joint Planning Meetings, the information provided shall use an economic CCS equal to five (5). A two-way trunk group must be installed from a Verizon End Office or Verizon Tandem to an appropriate POI (as such POI is determined under the terms of this agreement).

1.8.1 On a semi-annual basis, MCIm shall submit a good faith forecast to Verizon of the number of End Office and Tandem Two-Way Local Interconnection Trunks that MCIm anticipates that Verizon will need to provide during the ensuing two (2) year period.

1.8.2 The Parties shall meet (telephonically or in person) from time to time, as needed, to review data on End Office and Tandem Two-Way Local Interconnection Trunks to determine the need for new trunk groups and to plan any necessary changes in the number of Two-Way Local Interconnection Trunks.

1.8.3 Two-Way Local Interconnection Trunks shall have SS7 Common Channel Signaling. The Parties agree to utilize B8ZS and Extended Super Frame (ESF) DS1 facilities, where available.

1.8.4 Two-Way Local Interconnection Trunk groups that connect to a Verizon access Tandem shall be engineered using a design blocking objective of Neal-Wilkenson B.005 during the average time consistent busy hour; Two-Way Local Interconnection Trunk groups that connect to a Verizon local Tandem shall be engineered using a design blocking objective of Neal Wilkenson B.01 during the average time consistent busy hour. Verizon and MCIm shall engineer Two-Way Local Interconnection Trunks using national standards.

1.8.5 MCIm shall determine and order the number of Two-Way Local Interconnection Trunks that are required to meet the applicable design blocking objective for all traffic carried on each Two-Way Local Interconnection Trunk group. MCIm shall order Two-Way Local Interconnection Trunks by submitting ASRs to Verizon setting forth the number of Two-Way Local Interconnection Trunks to be installed and their respective CFAs and the requested installation dates within Verizon's effective standard intervals or negotiated intervals, as appropriate. MCIm

shall complete ASRs in accordance with Ordering and Billing Forum Guidelines as in effect from time to time.

1.8.6 Verizon may monitor Two-Way Local Interconnection Groups using service results for the applicable design blocking objective. If Verizon observes blocking in excess of the applicable design objective on any final Two-Way Local Interconnection Trunk group (which, for the avoidance of any doubt, does not include blocking due to anomalies) and MCIm has not notified Verizon that it has corrected such blocking, Verizon may submit to MCIm a Trunk Group Service Request directing MCIm to remedy the blocking. Upon receipt of a Trunk Group Service Request, MCIm will, within five (5) business days, complete and submit to Verizon an ASR to augment such final Two-Way Local Interconnection Group in order to eliminate such blocking.

1.8.7 The standard on final Two-Way Local Interconnection Trunks is that no such Local Interconnection Trunk group will exceed its design blocking objective (B.005 or B.01, as applicable) for three (3) consecutive calendar traffic study months.

1.8.8 Because Verizon will not be in control of the timing and sizing of the Two-Way Local Interconnection Trunks between its network and MCIm's network, Verizon's performance on these Two-Way Local Interconnection Trunk groups shall not be subject to any performance measurements and remedies under this Agreement, and, except as otherwise required by Applicable Law, under any FCC or Commission approved carrier-to-carrier performance assurance guidelines or plan.

1.8.9 Upon three (3) months prior written notice and with the mutual agreement of the Parties, either Party may withdraw its traffic from a Two-Way Local Interconnection Trunk group and install One-Way Local Interconnection Trunks to the applicable POI. Additionally, subject to mutual agreement, the Parties may establish project intervals and a conversion process by which MCIm may request that Verizon convert existing One-Way trunk groups to Two-Way trunk groups.

1.8.10 If the Parties have established a primary high usage trunk group from an end office, the first route choice will be that trunk group. The Parties shall route traffic in accordance with Telcordia SR-TAP 191.

1.8.11 All charges, both non-recurring and recurring, associated with interconnecting trunk groups between Verizon and MCIm are set forth in the Pricing Attachment of this Agreement. For two-way trunking that carries both Parties' traffic, including trunking that carries Transit Traffic, each Party shall pay its proportionate share of the recurring charges for

transport facilities based on the percentage of the total traffic originated by that Party. MCIm shall determine the applicable percentages four times per year based on the previous quarter's minutes of use billed by each Party. Each Party shall pay fifty percent (50%) of the nonrecurring charges for initial facilities based on the joint forecasts for circuits required by each Party.

[Issue No. VI-3(A) resolved]

Section 2. Intentionally Left Blank

[Issue No. IV-9, resolved]

Section 3. Signaling

3.1 **Signaling Protocol**. Unless otherwise indicated in this Agreement or specified by MCIm, the Parties will interconnect their networks using SS7 signaling as defined in Bellcore documents GR-905-CORE, Issue 1, March 1995, Bellcore Special Report SR-TSV-002275, BOC Notes on the LEC Networks-Signaling, Bellcore Generic Requirements GR-317, Issue 1, February 1994 and GR-394, Issue 1, February 1994, including ISDN User Part (ISUP) for trunk signaling and Transaction Capabilities Application Part (TCAP) for CCS-based features in the Interconnection of their networks. Either Party may establish CCS Interconnections either directly or through a third party.

3.2 The Parties will provide CCS to each other in conjunction with all trunk groups supporting intraLATA, local, transit, and toll traffic. CCS will not be provided in conjunction with trunk groups supporting Operator Services (Call Completion and Directory Assistance), 911, or where CCS has not been deployed by the originating carrier. The Parties will cooperate on the exchange of TCAP messages to facilitate full inter-operability of CCS-based features between their respective networks, including all CLASS features and functions, to the extent each carrier offers these features and functions to its own End Users. All CCS signaling parameters will be provided, including, but not limited to, Automatic Number Identification (ANI), originating line information (OLI), calling party category, Charge Number, *etc.* For terminating FGD, Verizon will pass CPN if it receives CPN from FGD carriers. All privacy indicators will be honored. Where available, the Parties will provide network signaling information such as Transit Network Selection (TNS) parameter, Carrier Identification Codes (CIC), CCS platform, and CIC/OZZ information (non-CCS environment) at no charge wherever this information is needed for call routing or billing. The Parties will generally conform to OBF adopted guidelines pertaining to TNS and CIC/OZZ codes.

3.3 Refer to Attachment III, Section [11] for detailed terms of SS7 Network Interconnection.

3.4 Unless otherwise indicated in this Agreement, all interconnection facilities shall be 64Kbps Clear Channel Capability (CCC) and Extended Super Frame with Bipolar 8 Zero

Substition line coding (ESF B8ZS). Where ESF B8ZS is not currently available, MCIm may agree to use other interconnection protocols on an interim basis until the standard ESF B8ZS is available. Verizon shall, at a planning meeting between the Parties, provide any anticipated dates of availability for those areas where ESF B8Z5 is not available.

[Issue No. III-4, open 11/12/01]

Section 4. Network Servicing

4.1 Forecasting

4.1.1 The Parties shall meet at least twice per year to discuss traffic forecasts. To the extent possible, the meetings shall be coordinated to fit within each Party's respective capital budget cycle. At each forecast meeting, MCIm shall provide forecasts for one-way and two-way traffic. MCIm's forecasts for Verizon-originated traffic shall be based on DIXC data provided by Verizon to MCIm for both one-way and two-way trunks.

4.1.2 If, prior to the next regularly scheduled forecast meeting, the Parties discover that a forecast was in error by 50% or more, the Parties shall meet as soon as practicable to revise the forecasts.

4.1.3 If a forecast is agreed to by Verizon, the Parties will monitor trunk usage after 60 days from the implementation of the trunks pursuant to the forecast. If trunk utilization is 80% or more, then trunks will be added. If trunk utilization is 60% or less, then trunks will be removed to bring the utilization over 60%.

4.1.4 If a forecast is not agreed to by Verizon, the Parties will wait 90 days after implementation of the trunks pursuant to the forecast, in order to allow usage levels forecasted by MCIm to be achieved. After this 90-day period, the trunk usage shall be adjusted as described above.

4.1.5 Grades of service for trunks shall be as described in this Agreement.

4.1.6 Unless otherwise specified in this Agreement, orders between the Parties to establish, add, change, or disconnect trunks shall be processed by use of an Access Service Request ("ASR") from MCIm to Verizon, using OBF standards.

4.1.7 At either Party's request, the Parties shall work cooperatively to coordinate major large network interconnection projects that require related work activities between and among Verizon and MCIm work groups, including but not limited to, the initial establishment of Local Interconnection Trunk Groups or Meet Point Trunk Groups and service in a

new area, NXX code moves, re-homes, facility grooming, or network rearrangements. Major projects will be provisioned within a reasonable time.

4.1.8 MCIm and Verizon agree to exchange escalation lists which reflect contact personnel, including vice president-level officers. These lists shall include name, department, title, phone number, and fax number for each person. MCIm and Verizon agree to exchange an up-to-date list promptly following changes in personnel or information.

4.1.9 The Parties shall cooperate with each other to test all trunks prior to turn up.

[Issue No. I-4, open 11/12/01]

4.2 Tandem Exhaust. If a tandem through which the Parties are interconnected is unable to, or is forecasted to be unable to, support additional traffic loads for a six month forecasting cycle, the Parties will mutually agree on an end office trunking plan for future trunking additions until Verizon has alleviated the tandem capacity shortage. Verizon shall take appropriate action to alleviate tandem capacity shortage if such tandem is unable to, or is forecasted to be unable to, support additional traffic loads for any period of time.

4.2.1 If a tandem through which the Parties are interconnected is unable to, or is forecasted to be unable to, support additional traffic loads for any period of time, the Parties will mutually agree on an end office trunking plan that will alleviate the tandem capacity shortage and ensure completion of traffic between MCIm and Verizon Customers.

4.2.2 Traffic volume – Either Party may order, and the other Party shall install and retain, direct end office two-way trunking sufficient to handle actual or reasonably forecasted two-way traffic volumes, whichever is greater, between an MCIm switching center and a Verizon end office where the traffic exceeds 200,000 minutes of use per month. When the traffic between an MCIm switching center and a Verizon end office exceeds 170,000 minutes of use per month, either Party may notify the other Party and request that the facilities be installed. Such facilities will be installed on mutual agreement. The Parties will install additional capacity between the MCIm switching center and the Verizon end office when overflow traffic between the MCIm switching center and Verizon access tandem exceeds, or is forecast to exceed, 200,000 minutes of use per month.

4.2.3 Mutual Agreement – The Parties may install direct end office trunking upon mutual agreement in the absence of conditions of 2.4.1 or 2.4.2 above and agreement will not unreasonably be withheld.

[Issue No. III-4, open 11/12/01]

4.3 **Trunk Forecasting**

4.3.1 Orders for trunks that exceed forecasted quantities for forecasted locations will be accommodated as facilities or equipment become available. Parties shall make all reasonable efforts and cooperate in good faith to develop alternative solutions to accommodate orders when facilities are not available. The forecasts shall include:

4.3.2 Yearly forecasted trunk quantities to each of Verizon's End Offices and access Tandem Office(s) affected by the exchange of traffic (which include measurements that reflect actual Tandem and End Office Local Interconnection and meet point trunks and tandem-subtending Local Interconnection End Office equivalent trunk requirements for no more than two years (current plus one year) by traffic type (local/toll, operator services, 911, etc.), Access Carrier Terminal Location (ACTL), interface type (e.g., DS1), and trunks in service each year (cumulative);

4.3.3 The use of A location/Z location Common Language Location Identifier (CLLI-MSG), which is described in Bellcore documents BR 795-100-100 and BR 795-400-100; and

4.3.4 Each Party shall provide a specified point of contact for planning, forecasting, and trunk servicing purposes.

[Issue No. IV-10, resolved]

Section 5. Network Management

5.1 **Protective Protocols**

5.1.1 Either Party may use protective network traffic management controls such as 3, 7, and 10 digit network controls on traffic toward each other's network, when required to protect the public switched network from congestion due to facility failures, Switch congestion or failure, or focused overload. MCIm and Verizon shall promptly notify each other of any significant protective control action executed.

5.2 **Expansive Protocols**

5.2.1 Where the capability exists, originating or terminating traffic reroutes may be implemented by either Party to temporarily relieve network congestion due to facility failures or abnormal calling patterns. Reroutes will not be used to circumvent normal trunk servicing. MCIm and Verizon shall promptly notify each other of any significant protective control action executed.

5.3 **Mass Calling**

5.3.1 Per ATIS (Alliance of Telecommunications Industry Standards) guidelines, MCIm and Verizon shall cooperate and share pre-planning information regarding cross-network call-ins expected to generate large or focused temporary increases in call volumes, to prevent or mitigate the impact of these events on the public switched network.

5.4 **High Volume Calling Trunk Groups**

5.4.1 The Parties will cooperate to establish separate trunk groups for the completion of calls to high volume customers, such as radio contest lines.

[Issue No. IV-8, partially resolved 11/12/01]

Section 6. Line Status Verification And Verification With Call Interruption

6.1 Each Party shall offer Line Status Verification (LSV) and Verification and Call Interrupt (VCI) services to enable its subscribers to verify and/or interrupt calls on the lines of the other Party's subscribers. The receiving Party shall accept and respond to LSV and VCI requests from the operator bureau of the originating Party, provided that the originating Party has ordered the requisite underlying LSV/VCI service from the receiving Party.

6.2 The receiving Party operator shall only verify the status of the line or interrupt the line to inform the called Party that there is a call waiting. The receiving Party operator will not complete the telephone call of the subscriber initiating the LSV/VCI request. The receiving Party operator will make only one LSV/VCI attempt per subscriber operator bureau telephone call, and the applicable charges will apply whether or not the called Party releases the line.

6.3 Each Party's operator bureau shall accept LSV and VCI inquiries from the operator bureau of the other Party in order to allow the provision of LSV/VCI between the Parties' networks.

6.4 Each Party shall route LSV/VCI traffic inquiries over separate direct trunks (and not the local/intraLATA/interLATA trunks) established between the Parties' respective operator bureaus. Each Party shall offer interconnection for LSV/VCI traffic at its Operator Services tandem office or other mutually agreed point in the LATA. Separate LSV/VCI trunks will be directed to the Operator Services tandem office designated by the receiving Party. The originating Party shall outpulse the appropriate NPA, ATC Code, and Routing Code (operator code) to the receiving Party.

6.5 When a LSV/VCI request for a ported number is directed to either Party's operator and the query is not successful (i.e., the request yields an abnormal result), the operator shall confirm whether the number has been ported and shall direct the request to the appropriate operator.

6.6 **Compensation.** Each Party shall charge the other Party for LSV and VCI at rates specified in Attachment I.

[Issue No. IV-11, open 11/12/01]

Section 7. Usage Measurement

7.1 Each Party shall calculate terminating interconnection minutes of use based on standard Automatic Message Accounting ("AMA") recordings made within each Party's network, these recordings being necessary for each Party to generate bills to the other Party.

7.2 Measurement of minutes of use over Local Interconnection Trunk Groups shall be in actual conversation seconds. The total conversation seconds over each individual Local Interconnection Trunk Group will be totaled for the entire monthly bill-round and then rounded to the next whole minute.

7.3 For billing purposes, each Party shall pass Calling Party Number (CPN) information on each call carried over the traffic exchange trunks at such time as the originating Switch is equipped for SS7, and from all switches no later than December 31, 1998. At such time as either Party has the ability, as the Party receiving the traffic, to use such CPN information to classify on an automated basis traffic delivered by the other Party as either Local Traffic or toll traffic, such receiving Party shall bill the originating Party the Local Traffic termination rates, intrastate Exchange Access rates, or interstate Exchange Access rates applicable to each minute of traffic for which CPN is passed, as provided in Attachment I and applicable Tariffs.

7.4 If, under the circumstances set forth in Section [7.3] of this Attachment, the originating Party does not pass CPN on up to ten percent (10%) of calls, the receiving Party shall bill the originating Party the Local Traffic termination rates, intrastate Exchange Access rates, intrastate/interstate transit traffic rates, or interstate Exchange Access rates applicable to each minute of traffic, as provided in Attachment I and applicable Tariffs, for which CPN is passed. For the remaining up to ten percent (10%) of calls without CPN information, the receiving Party shall bill the originating Party for such traffic at Local Traffic termination rates, intrastate Exchange Access rates, intrastate/interstate transit traffic rates, or interstate Exchange Access rates applicable to each minute of traffic, as provided in Attachment I and applicable Tariffs, in direct proportion to the minutes of use of calls passed with CPN information.

7.5 If the originating Party fails to pass CPN on more than ten percent (10%) of calls, or if the receiving Party lacks the ability to use CPN information to classify on an automated basis traffic delivered by the other Party as either Local Traffic or toll traffic, the originating Party will supply an auditable Percent Local Usage (PLU) report quarterly, based on the previous three months' traffic, and applicable to the following three months. If the originating Party also desires to combine interstate and intrastate toll traffic on the same trunk group, it will supply an auditable Percent Interstate Usage (PIU) report quarterly, based on the previous three months' terminating traffic, and applicable to the following three months. In lieu of the foregoing PLU and/or PIU reports, the Parties may agree to provide and accept reasonable surrogate measures for an agreed-upon period.

7.6 Measurement of billing minutes for purposes of determining terminating compensation shall be in conversation seconds.

[Issue No. IV-12, resolved]

Section 8. Responsibilities of the Parties

8.1 Verizon and MCIm agree to treat each other fairly and Non-Discriminatorily for all items included in this Agreement, or related to the support of items included in this Agreement.

8.2 Either Party may request an audit of usage reports in accordance with the audit provisions set forth in the General Terms and Conditions (Part A) of this Agreement.

8.3 **[Intentionally Left Blank]**

8.4 **[Intentionally Left Blank]**

8.5 MCIm and Verizon shall:

8.5.1 Provide trained personnel with adequate and compatible test equipment to work with each other's technicians.

8.5.2 Notify each other when there is any material change affecting the service requested, including the due date.

8.5.3 Coordinate and schedule testing activities of their own personnel, and others as applicable, to ensure its interconnection trunks/trunk groups are installed per the interconnection order, meet agreed-upon acceptance test requirements, and are placed in service by the due date.

8.5.4 Perform sectionalization to determine if a trouble is located in its facility or its portion of the interconnection trunks prior to referring the trouble to each other.

8.5.5 Advise each other if there is an equipment failure which may affect the interconnection trunks.

8.5.6 Provide each other with a trouble reporting/repair contact number that is readily accessible and available twenty-four (24) hours/seven (7) days a week. Any changes to this contact arrangement must be promptly provided to the other Party.

8.5.7 Provide to each other test-line numbers to enable testing of interconnection trunks.

8.5.8 The Parties will work cooperatively to coordinate repair procedures for the meet point and local interconnection trunks and facilities to ensure trouble reports are resolved in a timely and appropriate manner.

[Issue No. IV-13, resolved]

Section 9. Reporting

9.1 Each Party shall provide the other Party Data Interexchange Carrier (DIXC) traffic data for Local Interconnection Trunk groups terminating in the other Party's network.

9.1.1 DIXC traffic data will be comprised of the following:

9.1.1.1 Usage (total usage measured in centum call seconds).

9.1.1.2 Peg Count (Peg count of originating call attempts including overflow).

9.1.1.3 Overflow (Peg count of originating call attempts failing to find an idle trunk).

9.1.1.4 Maintenance Usage (total maintenance usage measured in centum call seconds).

9.1.1.5 Maintenance Busy Counts (total count of trunks made maintenance busy).

9.2 DIXC traffic data shall be collected as follows:

9.2.1 Hourly on the clock hour.

9.2.2 24 hours per day (0000-2400).

9.2.3 Seven days per week, Sunday through Saturday (including holidays).

9.2.4 52 weeks per year.

9.3 The Parties will provide DIXC traffic data in a mutually agreed upon format.

[Issue No. III-1, open 11/12/01]

Section 10. Third Party Transit Traffic

10.1 IntraLATA traffic from third party LECs, CLECs, or CMRS providers will be routed over Local Interconnection Trunk Groups.

10.2 Verizon shall terminate all traffic destined to its network from third party LECs, CLECs, or CMRS providers in the LATA delivered to Verizon's network by MCIm.

10.3 Verizon shall pass all traffic delivered from MCIm destined to third party LECs, CLECs, or CMRS providers in the LATA.

10.4 Verizon shall pass all traffic delivered from third party LECs, CLECs, or CMRS providers in the LATA destined to MCIm's network or LECs, CLECs, or CMRS providers subtending MCIm's Switch.

[Issue Nos. III-1 & III-2, open 11/12/01]

10.5 Tandem Transit Switching Rate. When either Party uses the other Party's network to pass a local call to a third party LEC, CLEC, or CMRS provider, it shall pay a Tandem Transit Switching Rate equal to the tandem switching rate element set forth in Attachment I.

[Issue No. III-1, open 11/12/01]

10.6 Transit Signaling. MCIm may choose to route SS7 signaling information (e.g., ISUP, TCAP) from MCIm's signaling network to another CLEC's signaling network via Verizon's signaling network for the purpose of exchanging call processing/network information between MCIm and the other CLEC's network, whether or not Verizon has a trunk to the terminating switch, provided that, where Verizon does not have such a trunk, MCIm furnishes Verizon with:

10.6.1 the destination point codes (DPCs) of all the CLEC switches to which it wishes to send transit signaling;

10.6.2 the identity of the STPs in Verizon's network in which each DPC will be translated; and

10.6.3 the identity of the STPs in the other signaling network to which such transit signaling will be sent.

[Issue No. VI-1(C), partially resolved 11/12/01]

Section 11. Toll Free Service Access Code Traffic.

The following terms shall apply when either Party delivers toll free service access code (e.g., 800/888/877) ("800") calls to the other Party.

11.1 When MCIm delivers toll free service access code calls that have been queried to an "800" database to Verizon for delivery.

11.1.1 to an IXC:

MCIm shall provide an appropriate EMI record to Verizon for processing and Meet Point Billing in accordance with this Agreement; and MCIm shall bill the IXC the MCIm query charge associated with the call.

11.1.2 to Verizon or another LEC that is a toll free service access code service provider in the LATA MCIm shall provide an appropriate EMI record to the toll free service access code service provider; and

11.2 MCIm's Tariffed Feature Group D ("FGD") Switched Exchange Access and the MCIm query charge, shall be assessed to the toll free service access code service provider; and Verizon shall assess applicable Tandem Transit Service charges and associated pass through charges to **toll free service access code service provider.** When Verizon delivers toll free service access code calls that have been queried to an "800" database, originated by Verizon's or another LEC's Customers, to MCIm:

11.2.1 where the queried call is an intraLATA call that is handed off to MCIm in MCIm's capacity as a toll free service access code service provider:

11.2.2 Verizon shall bill MCIm the Verizon query charge associated with the call as specified in the Pricing Attachment; and

11.2.2.1 Verizon shall provide an appropriate EMI record to MCIm; and

11.2.2.2 Verizon's Tariffed FGD Switched Exchange Access charges shall be billed to MCIm.

11.3 Unqueried Toll Free Service Access Code (e.g., 800/88/8/877) Traffic. If MCIm chooses Verizon to handle toll free service access code (e.g., 800/888/877) ("800") database queries from MCIm's central office switches, all originating Toll Free Service calls for which MCIm requests that Verizon perform the Service Switching Point ("SSP")

function (e.g., perform the database query) must be delivered over an appropriate trunk group capable of carrying GR-394 format.

11.3.1 When the 800 call is routed to an IXC:

11.3.1.1 Verizon will query the call and route the call to the appropriate IXC.

11.3.1.2 Verizon shall provide an appropriate EMI record to MCIm to facilitate billing to the IXC.

11.3.2 Verizon shall bill the IXC the Verizon query charge associated with the call and any other applicable Verizon charges.

11.3.3 When the 800 call is an IntraLATA call routed to Verizon or another LEC that is a toll free service access code service provider in the LATA:

11.3.3.1 Verizon will query the call and route the call to the appropriate LEC toll free service access code service provider.

11.3.3.2 Verizon shall provide an appropriate EMI record to MCIm to facilitate billing to the LEC toll free service access code service provider

11.3.3.3 Verizon shall bill the LEC toll free service access code service provider the query charge associated with the call and any other applicable Verizon charges.

11.4 Verizon will not direct unqueried toll free service access code call to MCIm.